

al substances in vivo are enumerated. When determining the density of a light absorption substances, the light absorption characteristics of the light absorption substance corresponding to the wavelength of the illuminate light are used. In general, when measuring a deep portion in a living body, a light having a wavelength in a range from 650nm to 1300nm is used which shows a high in vivo transmissivity.

IN THE CLAIMS:

Please cancel claims 1-2 without prejudice or disclaimer, and substitute claims 3-10 with the following amended claims:

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3.

An optical measurement device according to claim 1, wherein a plurality of measurement amounts or measurement amount variations of the measurement object substance at the position designated are taken within a time period and displayed.

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4.

An optical measurement device which optically measures a measurement object substance within a measurement region of a subject, comprising:

illuminating means for sending out a light to illuminating the subject;

detecting means for detecting at least one reflected or scattered light from the illuminated subject;

determining means for determining at least one measurement amount or measurement amount variation of the measurement object substance at a measurement position according to a detection value detected at a detection position by the detecting means;

displaying means for displaying on a first image screen a mapping image formed by connecting points with an equal measurement amount or measurement amount variation as determined by the determining means; and

designating means for designating at least one position on the mapping image or in the measurement region of the subject so as to visually output in a second image or audibly output a numerical value of the measurement amount or the measurement amount variation of the measurement object substance at the position designated.

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An optical measurement device according to claim 4, wherein the light having a plurality of wavelengths and said reflected or scattered light is detected by the detected means then separated into light components of corresponding plurality of wavelengths by the determining means.

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An optical measurement device according to claim 4, wherein the measurement amount or the measurement amount variation of the measurement object substance at the position designated is displayed in the first image screen.

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An optical measurement device according to claim 4, wherein the measurement amount or the measurement amount variation of the measurement object substance at the position designated is displayed in a second image screen.

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An optical measurement device according to claim 4, wherein a pair of horizontal and vertical lines passing through the designated position are displayed on the first image screen.

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An optical measurement device according to claim 8, scales for reading horizontal and vertical positions on the horizontal and vertical lines are displayed on the first image screen.

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An optical measurement device according to claim 4, further comprising:

a sensor for sensing said at least one measurement position in the measurement region of the subject as designated by the designating means, said sensor being made from a piezoelectric element and placed under a contact or non-contact condition to the subject; and

optical fibers passing through the sensor to the subject for transmitting the light from the illuminating means onto the illumination position within the measurement region and for outputting a detection value detected by the detecting means at the detection position.

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Please add new claims 11-19 as follows:

- 9.
11. An optical measurement device according to claim 4, wherein the designating means designated a plurality of positions constituting a line on the mapping image so as to display in the second image measurement amounts or measurement amount variations of the measurement object substance at the positions of the line.
- 10.
12. An optical measurement device according to claim 4, wherein the designating means designated a position corresponding to one of a maximum value, a minimum value, a local maximum value and a local minimum value, said one of the maximum value, the minimum value, the local maximum value and the local minimum value is displayed.
- 11.
13. An optical measurement device according to claim 4, further comprising voice outputting means for outputting audibly the measurement amount or the measurement amount variation of the measurement object substance at the position designated.
- 12.
14. An optical measurement device according to claim 12, further comprising voice outputting means for outputting audibly said one of the maximum value, the minimum value, the local maximum value and the local minimum value.
- 13.
15. An optical measurement device according to claim 4, wherein coordinates of the position designated are displayed.
- 14.
16. An optical measurement device according to claim 4, wherein the determining means selectively determines one measurement amount of the measurement object substance by linearly interpolating detection values detected at detection portions by the detecting means.

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An optical measurement device according to claim 10, further comprising:

a display for displaying on a first image screen a mapping image formed by connecting points with an equal measurement amount or measurement amount variation as determined by the determining means.

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An optical measurement device according to claim 15, further comprising:

a pointing device for designating at least one position on the mapping image so as to visually output in a second image or audibly output a numerical value of the measurement amount or the measurement amount variation of the measurement object substance at the position designated.

17.
19.

An optical measurement device according to claim 16, further comprising voice outputting means for outputting audibly the measurement amount or the measurement amount variation of the measurement object substance at the position designated.

IN THE DRAWINGS:

Please enter the attached corrected drawings Figs. 9-10 and 13, in which reference number "9" is being replaced with "99" in Fig. 9, an indicating line for reference number "97" is being added in Fig. 10, and the legend of "Prior Art" is being added in Fig. 13, all to replace Figs. 9-10 and 13 as originally filed. A Letter to Draftsperson is also submitted herewith.